

[0013] FIGS. 6-13 are various views of one embodiment of an infusion set;

[0014] FIG. 14 is a view of one embodiment of a connector of an infusion set;

[0015] FIGS. 15-18 are various views of one embodiment of an infusion set;

[0016] FIGS. 19-22 are various views of one embodiment of an infusion set;

[0017] FIGS. 23-33 are various views of one embodiment of an infusion set inserter system;

[0018] FIGS. 34-43 are various views of one embodiment of an infusion set inserter system;

[0019] FIGS. 44-48 are various views of one embodiment of an infusion set inserter system;

[0020] FIG. 49 is a view of one embodiment of an infusion set;

[0021] FIGS. 50A-50C are various views of one embodiment of an infusion set;

[0022] FIGS. 51A-51D are various views of one embodiment of a septum retainer;

[0023] FIGS. 52A-52D are various views of one embodiment of a septum retainer;

[0024] FIGS. 53A-53C are various views of one embodiment of a septum retainer;

[0025] FIGS. 54A-54B are various views of one embodiment of an infusion set;

[0026] FIGS. 55A-55C are various views of one embodiment of a base for an infusion set;

[0027] FIGS. 56A-56B are various views of one embodiment of a septum retainer;

[0028] FIGS. 57A-57B are various views of one embodiment of a connector for an infusion set;

[0029] FIG. 58 is a view of one embodiment of an infusion set; and

[0030] FIGS. 59-71 are various views and configurations of an inserter assembly/infusion set inserter system.

[0031] Like reference symbols in the various drawings indicate like elements.

DETAILED DESCRIPTION

[0032] In various embodiments, an infusion set may be used in conjunction with an infusion device and system and methods thereof as well as used in conjunction with an inserter assembly. In various embodiments, the infusion set is configured to be inserted into the subcutaneous layer of a user's skin and be fluidly connected to a fluid source. In various embodiments, the infusion set may be fluidly connected to a length of tubing and/or to an infusion pump. Infusion pumps include any infusion pump which may include, but is not limited to, the various infusion pumps shown and described in any one or more of the following: U.S. patent application Ser. No. 13/788,260, filed Mar. 7, 2013 and entitled Infusion Pump Assembly, now U.S. Publication No. US-2014-0107579, published April 17, 201 (Attorney Docket No. K40); U.S. Pat. No. 8,491,570, issued Jul. 23, 2013 and entitled Infusion Pump Assembly (Attorney Docket No. G75); U.S. Pat. No. 8,414,522, issued Apr. 9, 2013 and entitled Fluid Delivery Systems and Methods (Attorney Docket No. E70); U.S. Pat. No. 8,262,616, issued Sep. 11, 2012 and entitled Infusion Pump Assembly (Attorney Docket No. F51); and U.S. Pat. No. 7,306,578, issued Dec. 11, 2007 and entitled Loading Mechanism for Infusion Pump (Attorney Docket No. C54); all of which are attached hereto, and are hereby incorporated herein by reference in

their entireties. In various embodiments, the various embodiments of the infusion devices described herein may be used alone or in conjunction with an infusion set.

[0033] Various embodiments are described and shown herein. Each embodiment of each element may be used in any other embodiment of any device. Each embodiment of the inserter device may be used with any embodiment of the infusion set devices.

[0034] A system is disclosed which includes an infusion set and an inserter device. In various embodiments, the inserter device includes one or more disposable portions.

Infusion Set

[0035] In various embodiments, an infusion set is disclosed. Referring now to FIGS. 1-5, an embodiment of an infusion set 10 is shown. In various embodiments, the infusion set 10 includes a connector 12, tubing 14, a connector needle 16, a septum 18, a septum retainer 20, a base 22, a cannula 24 and an introduction needle 26. The connector 12 includes a connector needle 16 which, when brought into contact with the base 22 is inserted through the septum 18 such that it is in fluid communication with the cannula 24. In addition, in some embodiments, one which is shown in FIG. 5, the infusion set may additionally include a funnel 28 which, in various embodiments, may be desirable/beneficial for it functions as a needle guide to guide the introduction needle 26.

[0036] Still referring to FIGS. 1-6 and FIG. 49, In various embodiments, the septum 18 is press fit into the base 22 and the septum retainer 20, introduction needle 26, and funnel 28 are also press fit into the base 22. In various embodiments, the base 22 includes a cutout area 30. The cutout area 30 is configured to accommodate a length of tubing 14 as it is wrapped around the infusion set 10. This may be beneficial/desirable for many reasons, including, but not limited to, preventing kinking of the tubing 14, as once the tubing 14 is wrapped around the infusion set 10, when pulled in various directions or at an angle, the tubing may have less chances of kinking, and kinking may cause occlusions. In various embodiments, the cutout area 30 functions as a tubing organizer.

[0037] In various embodiments, the tubing 14 may wrap around the infusion set 10 and may be clipped or otherwise secured in place. The clipping or securing may be done in any direction. Thus, in various embodiments, the wrapping the tubing around the infusion set 10 may allow changing the direction of the tubing. In some embodiments, the tubing 14 may be routing underneath the infusion set 10 to change the direction.

[0038] In various embodiments, the base 22 includes an adhesive layer on the bottom. However, in various other embodiments, the base may not include an adhesive layer on the bottom. In some embodiments, the adhesive layer may be covered with a paper or other to prevent exposure of the adhesive prior to adhering to a user/patient's skin. Prior to adhering to the skin, the paper or other may be removed and the base 22 may be pressed against the user/patient's skin. The adhesive maintains the base 22 on the skin.

[0039] In some embodiments, an adhesive layer may be included on an inserter device such as one of the various embodiments described herein. In some embodiments of these embodiments, as the infusion set is pushed towards the user, the infusion set comes into contact with an adhesive